

**Commonwealth of Kentucky  
Natural Resources and Environmental Protection Cabinet  
Department for Environmental Protection  
Division for Air Quality  
803 Schenkel Lane  
Frankfort, Kentucky 40601  
(502) 573-3382**

**Conditional Major  
AIR QUALITY PERMIT**

**Permittee Name:** Alcoa Automotive Castings – Kentucky Casting Center  
**Mailing Address:** 1660 State Route 271 North, Hancock, Kentucky 42348

**Source Name:** Alcoa Automotive Castings – Kentucky Casting Center  
**Mailing Address:** Same as above

**Source Location:** Same as above

**Permit Number:** F-01-020  
**Log Number:** 55672  
**Review Type:** Re-evaluation of Conditional Major (Consolidated)  
**KYEIS ID #:** 01-003  
**SIC Code:** 33

**Responsible Regional Office**  
Alcoa Park Drive W., Suite 700  
Cincinnati, KY 42303-2191  
(202) 587-7304

**County:** Hancock

**Application**  
**Complete Date:** June 11, 2001  
**Issuance Date:**  
**Expiration Date:**

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**John S. Lyons, Director  
Division for Air Quality**

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<b>Rev #</b>	<b>Permit type</b>	<b>Log #</b>	<b>Complete Date</b>	<b>Issuance Date</b>	<b>Summary of Action</b>
----	Initial Issuance	53672	06/11/01		

## **SECTION A – PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto and shall become the final permit unless the U.S. EPA files an objection pursuant to 401 KAR 52:100, Section 10.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

### Group Requirements:      Group 1

<u>Emission Point (Company Number):</u>	<u>Construction commenced:</u>
<b>1(1) Reverberatory Furnace</b>	<b>March 1996</b>
<b>18(31) Reverberatory Furnace</b>	<b>January 1998</b>
<b>19(40) Reverberatory Furnace</b>	<b>November 1999</b>
<b>F06 (F13) Reverberatory Furnace</b>	<b>September 1982</b>
<b>F07 (F14) Reverberatory Furnace</b>	<b>September 1982</b>

### Description:

Each emission point is a natural gas-fired reverberatory furnace. Emission points 1,18,and 19 (located in the Casting Building) each melt 2 tons/hour of clean charge, internal scrap, and clean customer returns. Emission points F06 and F07 (located in the Foil Building) each melt 2.3 tons/hour of clean charge, internal scrap, and clean customer returns. Reactive salt fluxing is performed in each furnace. The rated heat input capacity of furnaces 1, 18, and 19 is 8.8 mmbtu/hour each, and furnaces F06 and F07 are each rated at approximately 10 mmbtu/hour heat input. As defined in 40 CFR Part 63, Subpart RRR, each reverberatory furnace is considered a group 1 furnace (defined at 40 CFR 63.1503) if they utilize reactive fluxing depending on the types of materials charged to each furnace.

At this time Alcoa is requesting to opt-out of the 40 CFR 63 Subpart RRR area source requirements by charging only materials that would be allowed such that the area source requirements would not be applicable. Should Alcoa need to revise this opt-out status, both the State and the EPA will be properly notified.

Annual hours of operation: 8760 hours/year  
 Control equipment: None  
 Stack #: 1, 18, 19, F06, and F07

### Emission Activity:

For each emission point:

- Aluminum (alloy) melting
- Fluxing
- Natural gas combustion

### Pollutants:

PM, PM10, VOC  
 HCl, HF, PM, PM10  
 PM, PM10, CO, SO<sub>2</sub>, NO<sub>x</sub>, VOC

### APPLICABLE REGULATIONS:

401 KAR 52:030 – Federally-enforceable permits for non-major sources. Applies to HCl emission.  
 401 KAR 59:010 – New process operations. Applies to particulate and visible emissions from aluminum melting.  
 401 KAR 63:020 – Potentially hazardous matter or toxic substances. Applies to HCl and HF emissions.

### State-Origin Applicable Regulations:

401 KAR 53:010 – Ambient air quality standards. Applies to HF emission.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****1. Operating Limitations:**

- a. The permittee shall melt only clean charge (to include internal scrap and customer returns) unless prior notification is sent to the EPA and the KDAQ state agency.
- b. Should the permittee charge any material that subjects the facility to 40 CFR 63 Subpart RRR, the permittee shall comply with all applicable requirements specified in 40 CFR 63 Subparts RRR and A.

**2. Emission Limitations:**

- a. Pursuant to 401 KAR 59:010, the permittee shall not emit:
  - i. Particulate emissions in excess of 1.6 pounds/hour and 7.01 tons/12-month rolling period from each of the emission points 1, 18, and 19.
  - ii. Particulate emission in excess of 1.84 pounds/hour and 8.06 tons/12-month rolling period from each of the emission points F06 and F07.
  - iii. Visible emission equal to or greater than twenty (20) percent opacity from any Group 1 emission point.
- b. Pursuant to 401 KAR 52:030, the permittee shall not emit source-wide HCl emission in excess of 9.4 tons/12-month rolling period. Self-imposed to preclude 401 KAR 52:020 – Title V permits.
- c. Pursuant to 401 KAR 53:010, the permittee shall not emit in excess of:
  - i. 0.70 tons HF/12-month rolling period from emission points 1, 18, and 19 combined (including the associated metal transfer lines, holding furnaces, and casting devices).
  - ii. 0.50 tons HF/12-month rolling period from emission points F06 and F07 combined. These limits will ensure that source-wide HF emissions (maximum ground-level concentration obtained by modeling source-wide stack and volume HF emissions) do not cause an exceedance with either the primary or secondary ambient air quality standards at any single point location off the facility property.
- d. Should the facility become subject to the area source requirements of 40 CFR 63 Subpart RRR, the permittee shall comply with all applicable emission limits specified in 40 CFR §63.1505.

**Compliance Demonstration Method:**

- e. For each emission point:
  - i. The permittee shall demonstrate compliance with the hourly particulate emission limit through the following equation:

$$\begin{aligned} & \text{Hourly particulate emission (pounds/hour)} \\ & = \text{Hourly total metal melt rate (tons/hour)} \times 0.8 \text{ lb PM/ ton of metal melted} \end{aligned}$$

The hourly metal melt rate shall be determined by averaging the total metal melt rate for each month over the hours of operation for the month.

- ii. The permittee shall demonstrate compliance with the annual particulate emission limit through the following equation:

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE**

**REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

*Annual particulate emission (tons/12-month rolling period)*

$$= \sum_{1}^{12} [\text{Monthly total metal melt rate (tons/month)} \times 0.8 \text{ lb PM / ton of metal melted} \\ \times (1 \text{ ton}/2,000 \text{ lbs})]$$

The monthly total metal melt rate shall be determined by summing the total aluminum and alloy charged to each furnace for each month.

- iii. The permittee shall demonstrate compliance with the opacity limit through monitoring and maintenance of records as specified in 4. Specific Monitoring Requirements and 5. Specific Recordkeeping Requirements.
- f. The permittee shall demonstrate compliance with the source-wide HCl emission limit through the following equations:

*Annual source-wide HCl emission (tons/12-month rolling period)*

$$= \sum_{1}^{12} [\text{Monthly flux salt added throughout the entire source (pounds/month)} \times \text{HCl} \\ \text{emission factor from aluminum fluxing (pounds HCl emitted/pound flux) /} \\ (2000 \text{ pounds/ton})]$$

$$\text{HCl emission factor from aluminum fluxing (pound HCl emitted/pound flux)} \\ = \text{Chloride content of flux salt (pound Cl available/pound flux)} \times (0.025 \text{ pound Cl} \\ \text{emitted/pound Cl available}) \times (36.461 \text{ lb HCl emitted}/35.453 \text{ lb Cl emitted})$$

Upon the Division's approval of permittee's performance test report, the permittee can request that a site-specific performance test emission factor be used for demonstrating compliance with the emission limitations of this permit.

- g. The permittee shall demonstrate compliance with the HF ambient air standard through monitoring, maintenance of records, and reporting as specified in 4. Specific Monitoring Requirements, 5. Specific Recordkeeping Requirements, and 6. Specific Reporting Requirements respectively.
- h. Should the facility become subject to 40 CFR 63, Subpart RRR, the permittee shall demonstrate compliance with the applicable area source emission limits in 40 CFR §63.1505.

**3. Testing Requirements:**

The permittee shall conduct performance tests on one representative emission point at maximum processing rates within 120 days after receipt of a written request to perform testing from the Kentucky Division for Air Quality. Emissions to test for are: particulate emissions by Reference Method 5, visible emissions by Reference Method 9, and HCl and HF emissions by Reference Method 26A. Should the facility become subject to 40 CFR 63

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Subpart RRR, the facility shall also conduct Reference Method 23 testing for dioxins and furans (D/F) emissions and the permittee shall demonstrate compliance according to §63.1511 and §63.1512 of 40 CFR 63 Subpart RRR. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test. The permittee must also furnish a written report of the results of such performance tests to the division's Frankfort Central Office within 45 days of test completion.

### 4. Specific Monitoring Requirements:

- a. To provide reasonable assurance that particulate emission limitations are being met for each emission point, the permittee shall monitor the following:
  - i. The type and monthly amount of metal throughput.
  - ii. The monthly hours of operation.
- b. To provide reasonable assurance that the visible emission limitations are being met for each emission point, a representative of the permittee who is certified in visible emissions evaluations, shall conduct the following:
  - i. Perform a qualitative visual observation of the opacity of emissions from each stack or vent on a quarterly basis and maintain a log of the observation (see 5. Specific Recordkeeping Requirements).
  - ii. Determine the opacity of the emissions by Reference Method 9 if visible emissions from any stack or vent is seen.
- c. To provide reasonable assurance that source-wide HCl emission limitation is being met, the permittee shall monitor the following:
  - i. The type and monthly aggregate total of flux salt added throughout the entire source.
  - ii. The maximum reactive chloride content (pound Cl/pound flux) of flux salt used.
- d. To provide reasonable assurance that the HF ambient air quality standard is being met, the permittee shall monitor the following:
  - i. The type and monthly aggregate total of flux salt added throughout the entire source.
  - ii. The maximum reactive fluoride content (pound F/pound flux) of flux salt used.
  - iii. The source-wide HF emissions:

*Annual source-wide HF emission (tons/12-month rolling period)*

$$= \sum_{1}^{12} [\text{Monthly flux salt throughput for source (pounds/month)} \times \text{HF emission factor from aluminum fluxing (pounds HF emitted/pound flux)} / (2000 \text{ pounds/ton})]$$

*HF emission factor from aluminum fluxing (pound HF emitted/pound flux)*

$$= \text{Fluoride content of flux salt (pound F available/pound flux)} \times (0.18 \text{ pound F emitted/pound F available}) \times (20.006 \text{ lb HF emitted}/18.998 \text{ lb F emitted})$$

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

Upon the Division's approval of permittee's performance test report, the permittee can request that the performance test emission factor be used.

- e. Should the permittee become subject to 40 CFR 63 Subpart RRR, the permittee shall comply with all applicable monitoring requirements specified in 40 CFR §63.1510.

**5. Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following:

- a. The type and monthly amount of metal throughput.
- b. The monthly hours of operation.
- c. A log of quarterly opacity observations which shall note:
  - i. Whether any air emissions (except for water vapor) were visible from the vent/stack.
  - ii. All emission points from which visible emissions occurred.
  - iii. Whether the visible emissions were normal for the process.
  - iv. The opacity of the emissions as determined by Reference Method 9 and any other corrective actions, if visible emissions from any stack or vent is seen.
- d. The type and monthly aggregate total of flux salt throughput for entire source.
- e. The maximum reactive chloride and fluoride contents in each flux salt used.
- f. The 12-month rolling period source-wide HF and HCl emissions as determined at the end of each month.
- g. Should the permittee become subject to 40 CFR 63 Subpart RRR, the permittee shall comply with applicable recordkeeping requirements specified in 40 CFR 63 Subparts RRR and A.

**6. Specific Reporting Requirements:**

Any exceedance over the emission limitations stated in this permit shall be reported to the Division as specified in Section F. Should the permittee become subject to 40 CFR 63 Subpart RRR, the permittee shall comply with the applicable notification and reporting requirements specified in 40 CFR 63 Subparts RRR and A.

**7. Specific Control Equipment Operating Conditions:**

None

**8. Alternate Operating Scenarios:**

None



**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Group Requirements:          Group 2**

<b><u>Emission Point (Company Number):</u></b>	<b><u>Construction commenced:</u></b>
<b>2 (2)    Holding Furnace #11</b>	<b>March 1996</b>
<b>2 (-)    VRC/PRC Caster #11</b>	
<b>3 (2)    Holding Furnace #12</b>	
<b>3 (-)    VRC/PRC Caster #12</b>	
<b>20 (34) Holding Furnace #13</b>	<b>April 1997</b>
<b>20 (25) VRC/PRC Caster #13</b>	
<b>21 (35) Holding Furnace #14</b>	<b>November 1998</b>
<b>21 (26) VRC/PRC Caster #14</b>	
<b>22 (36)    Holding Furnace #15</b>	<b>February 1999</b>
<b>22 (27) VRC/PRC Caster #15</b>	
<b>23 (37) Holding Furnace #16</b>	<b>July 1999</b>
<b>23 (28) VRC/PRC Caster #16</b>	
<b>24 (38) Holding Furnace #17</b>	<b>January 2000</b>
<b>24 (29) VRC/PRC Caster #17</b>	
<b>25 (39) Holding Furnace #18</b>	<b>July 2000</b>
<b>25 (30) VRC/PRC Caster #18</b>	
<b>26 (32) Holding Furnace #21</b>	<b>January 1998</b>
<b>26 (23) VRC/PRC Caster #21</b>	
<b>27 (33) Holding Furnace #22</b>	
<b>27 (24) VRC/PRC Caster #22</b>	
<b>28 (42) Holding Furnace #23</b>	<b>June 2000</b>
<b>28 (41) VRC/PRC Caster #23</b>	
<b>29 (46) Holding Furnace #24</b>	<b>November 2000</b>
<b>29 (45) VRC/PRC Caster #24</b>	
<b>30 (48) Holding Furnace #25</b>	<b>April 2001</b>
<b>30 (47) VRC/PRC Caster #25</b>	

**Description:**

This group of emission points consists of electrical holding furnaces and electrical VRC/PRC casters. This equipment receives molten metal from the reverberatory furnaces. In the holding furnaces, fluxing and alloying of the molten metal are performed. The casters cast the molten metal into small automobile parts using non-VOC and non-HAP based lubricants.

Annual hours of operation:    8760 hours/year

Control equipment:            None

Stack #:                          Casting Building fugitive roof vent (#21, #22)

**Emission Activity:**

- Molten metal and alloy
- Fluxing
- Sand core usage in casting

**Pollutants:**

PM, PM10, Manganese (Mn), Nickel (Ni), Lead (Pb)  
HCl, HF, PM, PM10  
VOC, SO<sub>2</sub>

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **APPLICABLE REGULATIONS:**

401 KAR 52:030 – Federally-enforceable permits for non-major sources. Applies to HCl emission.

401 KAR 63:020 – Potentially hazardous matter or toxic substances. Applies to HCl, HF, Mn, Ni, and Pb emissions.

### **State-Origin Applicable Regulations:**

401 KAR 53:010 – Ambient air quality standards. Applies to HF emission.

#### **1. Operating Limitations:**

- a. Unless otherwise approved by the Kentucky Division for Air Quality, the permittee shall use only non-VOC and non-HAP based lubricants on the casting equipment.

#### **2. Emission Limitations:**

- a. See Group 1's Emission Limitations 2b. and 2c.

#### **Compliance Demonstration Method:**

- b. See Group 1's Compliance Demonstration Method 2f. and 2g.
- c. The permittee shall demonstrate compliance with 401 KAR 63:020 through monitoring and maintenance of records as specified in 4. Specific Monitoring Requirements and 5. Specific Recordkeeping Requirements.

#### **3. Testing Requirements:**

None

#### **4. Specific Monitoring Requirements:**

The permittee shall monitor the following:

- a. The monthly aggregate total of aluminum castings produced (including discards) from Group 2 and the monthly aggregate alloy throughput to Group 2.
- b. See Group 1's Specific Monitoring Requirements 4c. and 4d.
- c. The annual (12-month rolling) total of alloy throughputs into Group 2 and the emissions of each metal HAP (Mn, Ni, and Pb) by:

*Annual metal HAP emission (tons/12-month rolling period)*

$$= \sum_{1}^{12} \text{Monthly alloy throughput (tons alloy/month)} \times \text{KYEIS metal HAP emission factor from aluminum alloying (pounds pollutant/ton alloy)} \times (1 \text{ ton}/2,000 \text{ lbs})$$

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**5. Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following:

- a. The monthly aggregate total of aluminum castings produced (including discards) from Group 2.
- b. The maximum monthly hours of operation.
- c. See Group 1's Specific Recordkeeping Requirements 5d. through 5f.
- d. The monthly aggregate total of alloy throughputs into Group 2 and metal HAP emissions.

**6. Specific Reporting Requirements:**

Any exceedance over the emission limitations stated in this permit shall be reported to the Division as specified in Section F.

**7. Specific Control Equipment Operating Conditions:**

None

**8. Alternate Operating Scenarios:**

None

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Group Requirements:**            **Group 3**

**Emission Point:**

**04 (004) – Core Making Process**

**Description:** Laempe core making equipment utilized to make sand based cores for aluminum parts casting operations within the facility. The core making process is controlled by an acidic scrubber that controls emissions of triethylamine (TEA). The controlled emissions of TEA will be released from the scrubber outlet stack. The scrubber is only operating whenever TEA is used in the core making process. Whenever TEA is not used in the core making process, the scrubber is not operating, and the emissions from the process are released into the general in-plant environment.

**Emission Activity:**

- Core Production

**Pollutants:**

VOC, TEA  
Fugitive PM, PM10

**APPLICABLE REGULATIONS:**

Regulation 401 KAR 59:010, New process operations.

Regulation 401 KAR 63:021, Existing sources emitting toxic air pollutants.

Regulation 401 KAR 63:060, List of hazardous air pollutants, petitions process, lesser quantity designations, and source category list.

**1. Operating Limitations:**

None

**2. Emission Limitations:**

- Emission of triethylamine (TEA) shall not exceed 4.7 tons<sub>TEA</sub> per year based on a 12-month rolling time period as determined at the end of each calendar month.
- At any time the core making process uses TEA, the permittee shall operate the scrubber with an efficiency of not less than 96% by weight, for the reduction of the captured TEA emissions.

**Compliance Demonstration Method:**

The permittee shall demonstrate compliance with the TEA emission limitation through the following equation:

$$\begin{aligned} & \text{Annual emission rate of triethylamine (tons/12-month rolling period)} \\ &= \sum_{i=1}^{12} [ (\text{Monthly usage of material containing TEA}) \times (\text{Percentage of} \\ & \text{triethylamine present in the material}) \times (1 - 0.96) ]. \end{aligned}$$

The 12-month rolling emissions shall be calculated at the end of each month using the amount of TEA and the TEA removal efficiency of the control equipment.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**3. Testing Requirements:**

None.

**4. Specific Monitoring Requirements:**

- a. The scrubber shall be equipped with a system for measurement and recording of the pH of the recirculating scrubber liquid. The pH shall be monitored continuously and recorded at least once per week while the scrubber is operating.

**5. Specific Recordkeeping Requirements:**

- a. During any month that the core production process utilizes TEA, the permittee shall maintain records of the amount of each triethylamine (TEA) containing material used each month and the percentage of TEA present in each material. The permittee shall calculate the total amount of triethylamine emitted from the control device based on a minimum control efficiency of 96% by weight, and record it each month that TEA is used in the process. The monthly TEA emissions shall be added, at the end of each month, to the previous 11 month total TEA emissions in order to calculate a 12-month rolling emission rate in tons per year.
- b. Records shall be maintained to demonstrate that proper monitoring is being conducted during such times as the scrubber is operating to remove TEA from the core production process.

**6. Specific Reporting Requirements:**

All the information maintained in accordance to requirements of Condition 5 of this Section shall be made available for inspection by any duly authorized representative of the Division for Air Quality. Any exceedance of the emission limitation specified in 2. Emission Limitations shall be reported to the Division as specified in Section F.

**7. Specific Control Equipment Operating Conditions:**

See Section E.

**8. Alternate Operating Scenarios:**

None

**9. Compliance Schedule:**

NA

**10. Compliance Certification Requirements:**

NA

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<b><u>Description</u></b>	<b><u>Generally Applicable Regulation</u></b>
1. Die preheat oven (Tooling)	None
2. Glass Bead Shot Blast (Tooling)	401 KAR 59:010
3. Mobile Trim Presses (Forging)	None
4. Forging Press 6000	401 KAR 59:010
5. Forging Press 5000	401 KAR 59:010
6. Forging Press 2501	401 KAR 59:010
7. Forging Press 2502	401 KAR 59:010
8. Preheat furnace #2 (6000 Press)	None
9. Preheat furnace #3 (5000 Press)	None
10. Preheat furnace for Press 2501	None
11. Heat Treat/Age Furnaces (Forging)	None
12. Inspection Machine (FPI – Forging)	None
13. Hot Water Heater (Forging)	None
14. Steel Pellet Shot Blast (Forging)	401 KAR 59:010
15. Machining Operations (2 Machining Operations – Forging)	None
16. Ingot Preheat Furnace (Casting)	None
17. Heat Treat/Age Furnaces (Alfe East – Casting)	None
18. Heat Treat/Age Furnaces (Alfe West – Casting)	None
19. Etching Tanks (Forging)	None
20. Inspection Machine (FPI – Casting)	None
21. Crucible Preheater – Nat. Gas (Casting)	None
22. Buhler Casting Machines (2) (Casting)	None
23. Machining Operations (23 Machining Operations – Casting)	None
24. Tube/Sprue Coating Operation (including Dryer)	None
25. Tube/Sprue Blasting Cabinet	401 KAR 59:010
26. (10) Space Heating Units – Nat. Gas	None

**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING**

## **REQUIREMENTS**

1. As required by Section 1b of the material incorporated by reference in 401 KAR 52:030 Section 10, compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Particulate, visible, HCl, and HF emissions, as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein. Visible emissions as measured by method referenced in 401 KAR 59:010, shall not exceed the respective limitation specified herein.
3. The source-wide emissions of HCl shall not exceed 9.4 tons per 12-month rolling time period. The source-wide emissions of triethylamine shall not exceed 4.7 tons per 12-month rolling time period. The source-wide total emissions of all HAPs combined shall not exceed 22.5 tons per 12-month rolling time period. (Self-imposed to preclude major source classification pursuant to 401 KAR 52:020, Permits)

## **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.



## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS**

1. Pursuant to Section 1b (IV)(1) of the materials incorporated by reference in 401 KAR 52:030 Section 10, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place (as defined in this permit), and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
2. Pursuant to Section 1b (IV)(1) of the materials incorporated by reference in 401 KAR 52:030 Section 10, records of all required monitoring data, support information (including calibrations, maintenance records, and original strip chart recordings), and reports required by the Division for Air Quality shall be retained by the permittee for a period of five years. In accordance with Section 1a (7) of the materials incorporated by reference in 401 KAR 52:030 Section 10 and 401 KAR 52:030 Section 3(1)(f)1a, these records shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.
3. In accordance with the requirements of 401KAR 52:030 Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Access and copy any records required by this permit, enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation; and
  - b. Sample or monitor substances or parameters that affect compliance with the permit or any applicable requirements.

Reasonable times include all hours of operation, normal office hours, and during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

6. The semi-annual reports are to be postmarked no later than January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
8. Pursuant to Section 1b V(3) and (4) of the material incorporated by reference in 401 KAR 52:030 Section 10, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.5.
9. Pursuant to 401KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
  - a. Identification of each term or condition of the permit that is the basis of the certification;
  - b. The compliance status regarding each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent; and
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the year covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

Division for Air Quality  
Owensboro Regional Office  
3032 Alvey Park Drive W.  
Suite 700  
Owensboro, KY 42303-2191

Division for Air Quality  
Central Files  
803 Schenkel Lane  
Frankfort, KY 40601

10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission report is mailed to the permittee. If a KYEIS emission report is not mailed to the permittee, comply with all other emission reporting requirements in this permit.
11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by 401KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.
12. The cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
  - a. The owner or operator shall submit to the cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
    - i. The size and location of both the original and replacement units; and
    - ii. Any resulting change in emissions;
  - b. The PTE of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
  - c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to any new applicable requirement;
  - d. The replacement unit shall comply with all applicable requirements of the emission unit it replaces; and
  - e. The source shall notify Regional office of all shutdowns and start-ups.
  - f. Within six (6) months after installing the replacement unit, the owner or operator shall:
    - i. Re-install the original unit and remove or dismantle the replacement unit; or
    - ii. Submit an application to permit the replacement unit as a permanent change.

## SECTION G - GENERAL PROVISIONS

### (a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit. [Section 1a (2) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
2. Notification by the permittee of a planned change or anticipated noncompliance, or filing of a request for any permit revision, reissuance, or rescission shall not stay any permit condition. [Section 1a (5) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
3. Pursuant to Section 1a (2) of the materials incorporated by reference in 401 KAR 52:030 Section 10, 401 KAR 52:030 Section 7(3), and 401 KAR 50:060 Section 2, this permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401KAR 52:030 Section 12;
  - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish upon request information requested by the division to determine compliance with the permit or to determine if cause exists for modifying, revoking and reissuing, or terminating the permit. [Sections 1a (6) and (7) of the materials incorporated by reference in 401 KAR 52:030 Section 10]

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

5. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Section 1a (11) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
6. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Section 1a (3) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
7. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Section 1a (12)(b) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
8. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6). [Section 1a (9) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
9. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:030 Section 11(3)]
10. This permit does not convey property rights or exclusive privileges. [Section 1a (8) of the materials incorporated by reference in 401 KAR 52:030 Section 10]
11. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
12. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.
14. Permit Shield – A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
  - (a) Applicable requirements that are included and specifically identified in this permit; and
  - (b) Non-applicable requirements expressly identified in this permit.
15. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the division. [401 KAR 52:030 Section 3(1)(c)]

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

16. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the division after the completeness determination has been made on any application, by whatever deadline the division sets. [401 KAR 52:030 Section 8(2)]
17. All previously issued construction and operating permits (except for F-97-011) are hereby subsumed into this permit.

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 52:030 Section 12]

(c) Permit Revisions

1. Minor permit revision procedures specified in 401 KAR 52:030 Section 14 (3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14 (2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

(e) Emergency Provisions

1. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
  - a. An emergency occurred and the permittee can identify the cause of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
  - d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two (2) working days of the time when emission limitations were exceeded due to the emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
2. Notification of the division does not relieve the source of any other local, state or federal notification requirements.
3. Emergency conditions listed in General Provision G(f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:030 Section 23(3)]
4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:030 Section 23(2)]

(f) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center  
P.O. Box 3346  
Merrifield, VA, 22116-3346
2. If requested, submit additional relevant information by the division or the U.S. EPA.

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

(g) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.



**SECTION H - ALTERNATE OPERATING SCENARIOS**

None

**SECTION I - COMPLIANCE SCHEDULE**

None